Yukon
Health and Social Services

# Yukon Influenza Surveillance Report
## Influenza Season: 2009-2010
## Summary Report
## FluWatch Week 46 (Nov 15-21, 2009)

******All data are provisional and subject to change as information is received.***

Prepared by Yukon Communicable Disease Control

Report Written: Nov 27, 2009

Disseminated: Nov 27, 2009

## Report Highlights

This surveillance report produced by YCDC summarizes influenza activity in the Yukon for the 2009-2010 season, including FluWatch Week 46 (Nov 15-21, 2009) Please note that FluWatch reports are reported one week behind the current date.

2009-2010 FluWatch Weeks Calendar: http://www.phac-aspc.gc.ca/fluwatch/09-10/09-10cal-eng.php

All surveillance indicators demonstrated a decline in influenza activity during week 46. There were no new hospitalizations with confirmed pH1N1, however, one death was reported (previously reported hospitalized individual). Included in this report is the proportion of the population that has recieved pH1N1 vaccination since the campaign began October 26th, 2009.

## Pandemic H1N1 (pH1N1) Severe Outcomes

**Hospitalizations**

There were no new laboratory confirmed hospitalizations during week 46. Since October 20th, there have been 14 pH1N1 Yukon cases admitted to hospital. Among hospitalized cases 12 of the 14 had at least one risk factor for influenza complications. 3 out of 14 hospitalized cases have been admitted to ICU.

**Deaths**

Yukon has had a total of 2 laboratory confirmed pH1N1 related deaths. The first death occurred during week 44, in a female child with underlying health conditions. The second death occurred during week 46 in an adult female, underlying health conditions were not present.

## FluWatch Reporting

Based on FluWatch activity level definitions, Yukon has reported the following activity levels:

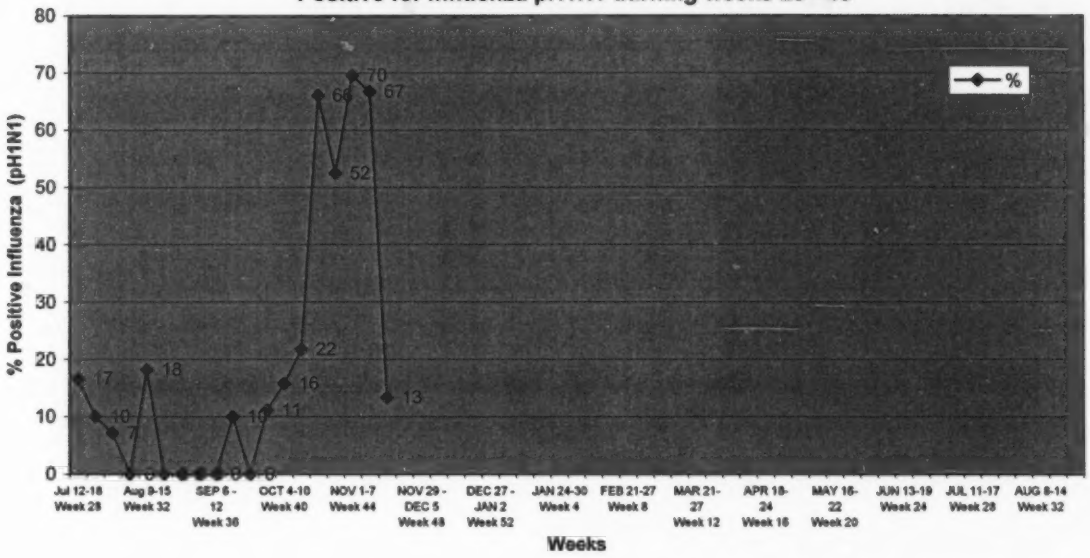
FluWatch activity level definition http://www.phac-aspc.gc.ca/fluwatch/09-10/def09-10-eng.php

| | |
|---|---|
| **Week 46** | Sporadic: Sporadically occurring ILI and lab confirmed influenza together with no outbreaks detected within the surveillance region. |

## Laboratory Reports

Percentage of respiratory specimens testing positive for influenza A decreased in week 46. During week 46, 13% of specimens were positive for influenza A. Off all positive influenza specimens, 100% were subtyped as pH1N1.

**Percentage of Respiratory Specimens (Submitted for testing in Yukon) Diagnosed Positive for Influenza pH1N1 durning weeks 28 - 46**



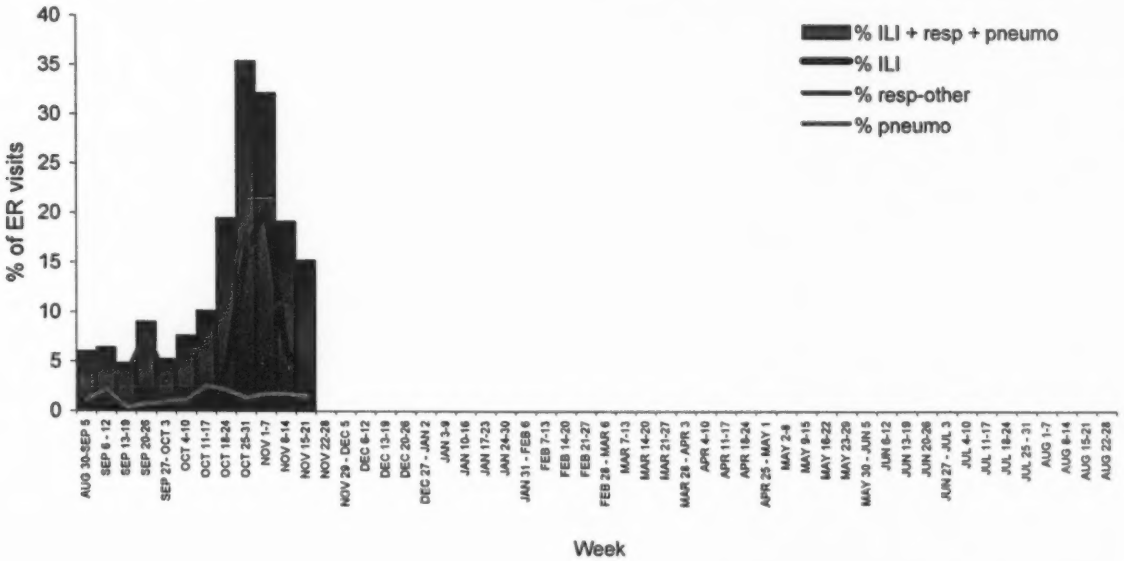

## Communities with Laboratory confirmed pH1N1

Cumulative laboratory information indicates that since April, 2009 Whitehorse and 9 out of 13 surrounding communities have had confirmed pH1N1 case reports. * *please note that this represents cases that have been followed by YCDC to date, follow up of positive cases is ongoing.*

## Whitehorse General Hospital Emergency Visits

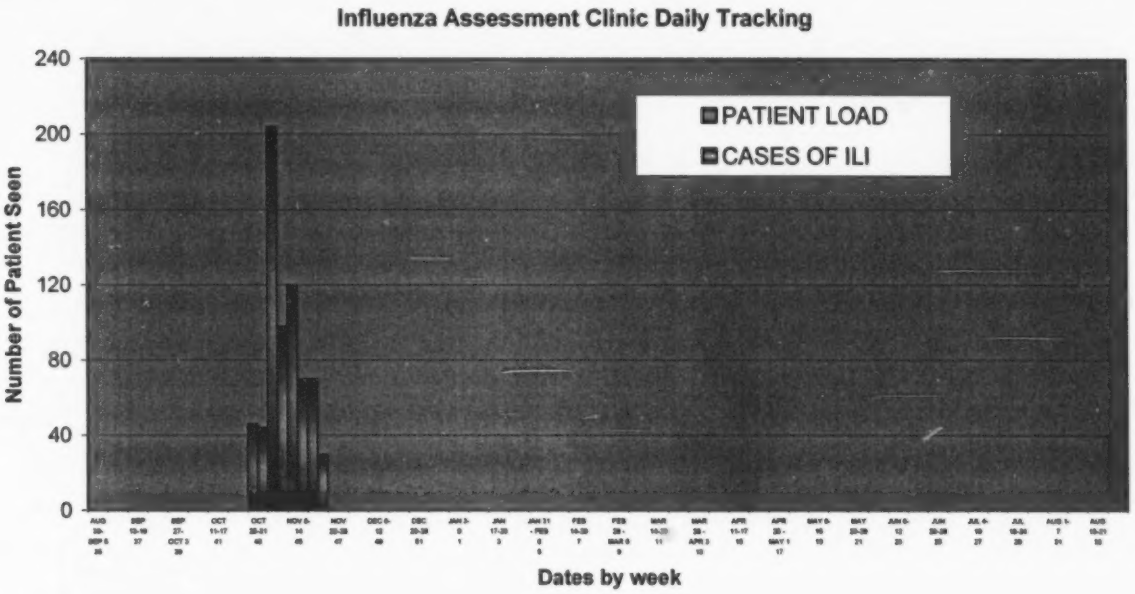
The percentage of presentations to the WGH emergency department with influenza-like illness (ILI) decreased in week 46. The proportion of visits for ILI, other respiratory symptoms, and pneumonia combined also decreased. From week 42 through week 44 (Oct 18-Nov 7), the percentage of presentations with ILI increased from 4% to 20%. In week 46, the percentage of presentations with ILI was 4%. The influenza assessment centre was open during weeks 44 through 46.

**Percent of WGH ER visits with influenza-like illness (ILI), other respiratory symptoms, or pneumonia by week**



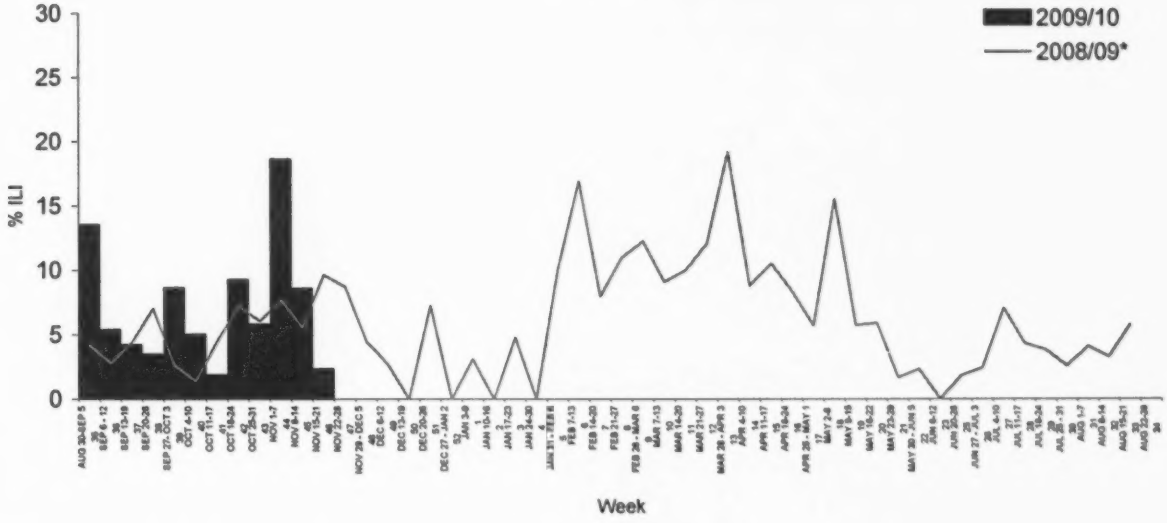
## Influenza Assessment Clinic

This downtown Whitehorse clinic opened its doors on October 30th, 2009. The following graph depicts patient volume from October 30th to November 21, 2009. The patient load, as well as the number of individuals presenting with ILI, reached a high in week 45 followed by decreases in week 45 and 46.




## Sentinel physicians/sites

The percentage of patients presenting to sentinel physicians or sites with ILI in week 46 was 2.3%. The highest proportions of ILI have been seen in the younger age groups (0-4 years, followed by 5-19 years). During the 2008/09 season, an average of five sentinel reports were received each week. A new recruitment of sentinel physicians and sites occurred in July 2009. There are presently 18 sentinel physicians/sites across the territory; 67% of sentinels reported in week 46. Yukon's sentinel surveillance system is comprised of all Community Health Centres and participating physicians. (FluWatch Sentinel Surveillance Information *http://www.phac-aspc.gc.ca/fluwatch/sent-eng.php* )

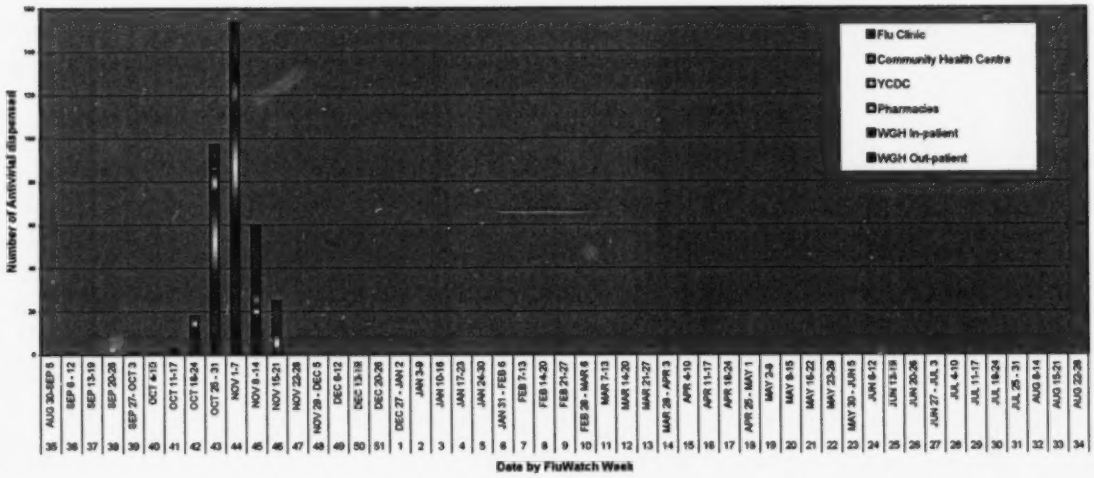



*2008/09 weeks are slightly different than those shown (following the Sun-Sat weekly pattern).

## Antiviral Prescriptions/Dispensing

From week 42 to week 44, there was a sharp increase in antiviral dispension in the Territory. The highest number of antivirals was dispensed in week 44, with 154 individuals given antivirals. Antiviral dispension dropped in weeks 45 and 46. *Please note data collection is ongoing for week 46*

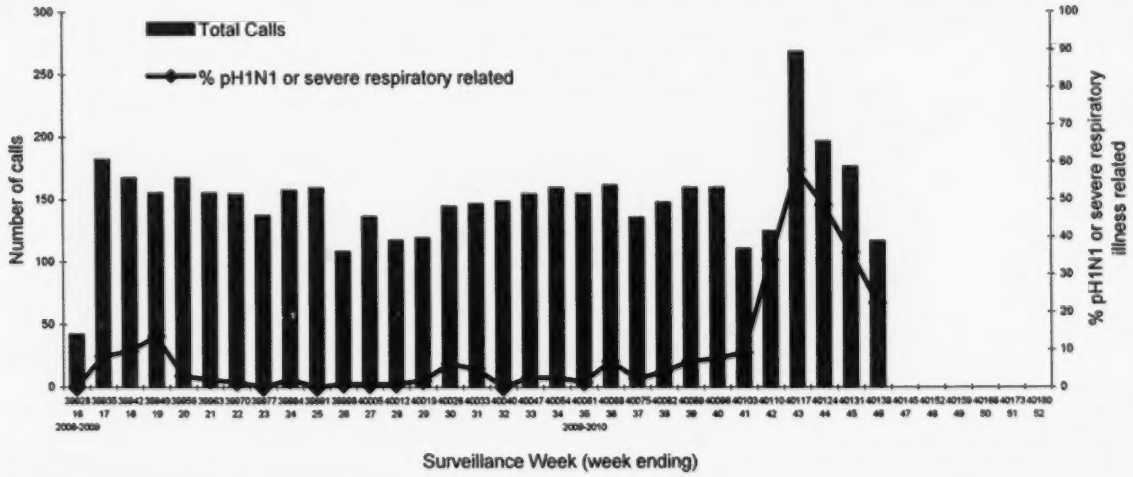
**Antivirial Tracking Sheet from Week 35 to present**




## HealthLink 811

The percentage of calls related to Influenza A pH1N1 or severe respiratory illness sharply increased in weeks 42 and 43 compared to previous weeks. During week 43, 58% of HealthLink 811 calls were related to pH1N1 or severe respiratory illness, with 45% of callers requesting information on symptom management and/or guidance. Week 43 saw an increase in overall call volume to HealthLink as well. During weeks 44 to 46, a decreasing proportion of HealthLink calls has been related to pH1N1 or severe respiratory illness.

**Number of calls and percentage related to pH1N1 or severe respiratory illness by month**




**Calls related to pH1N1 or severe respiratory illness by type of call**

| Week ending | Oct 17 | Oct 24 | Oct 31 | Nov 7 | Nov 14 | Nov 21 | Nov 28 | Dec 5 | Dec12 | Dec 19 | Dec 26 | Jan 2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
| Triage | 70.0 | 73.8 | 44.5 | 58.9 | 47.6 | 50.0 | | | | | | |
| Education | 30.0 | 26.2 | 54.8 | 40.0 | 42.9 | 30.8 | | | | | | |
| Wayfinding | 0.0 | 0.0 | 0.6 | 1.1 | 9.5 | 19.2 | | | | | | |

Note: Triage = caller requesting information on symptom management/guidance; Education = caller requesting information about an illness or condition; Wayfinding = caller looking for contact or service directions

## Outbreaks

On October 29th, 2009 YCDC was notified of an influenza outbreak within the Whitehorse Correctional facility. The outbreak was contained to fewer than 10 residents who developed symptoms during their stay at the facility or who exhibited symptoms of influenza upon admission. Causative organism of the outbreak was identified as pH1N1. This outbreak was declared over on November 16th, 2009

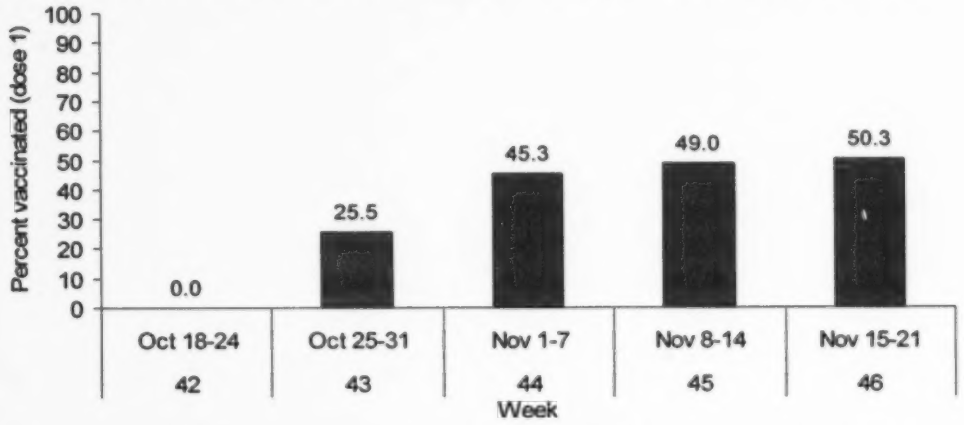
## Schools

During week 46, there were no reports of high absenteeism in schools.

## Immunization

The percentage of the population vaccinated with one dose against influenza A pH1N1 reached 50% in week 46. The age groups with the highest proportions vaccinated (dose 1) are those 6 months to 4 years and those 65 year or older. Vaccine administration is ongoing.

**Proportion of population vaccinated, dose 1, by week in the Yukon Territory**




**Proportion of population vaccinated, dose 1, by age group on November 24, 2009**

| Age group | % Vaccinated |
|---|---|
| 6 mo - 4 years | 66.4 |
| 5-18 years | 53.7 |
| 19-29 years | 32.8 |
| 30-39 years | 49.1 |
| 40-64 years | 52.7 |
| 65+ years | 65.1 |
| **TOTAL** | **50.7** |

***Data provided by the Community Nursing Vaccination Program.**

## Adverse Events Following Immunization

Of 17,638 doses administered from October 26 to November 27 2009, 23 adverse events following immunization have been reported. Half of these events were reports of local reactions, and half were reports of allergic reactions. None of the events fit the criteria for serious adverse events, and none required hospitalization.

***Obtained from: BRITSH COLUMBIA INFLUENZA SURVIELLANCE BULLETIN 2009 -10: Number 7, Week 46***

***November 15-21, 2009***

### *FluWatch*

During week 45, national influenza activity levels remained elevated. ILI consultation rates decreased for the second consecutive week from 111 (in week 43) to 91 consultations per 1000 patient visits in week 45; this is above the expected range for this time of year. People under 20 had the highest consultation rates. The proportion of tests positive for influenza was 40.6%, similar to the previous two weeks. Over 99% of all subtyped influenza A specimens were positive for pH1N1; 4 specimens were positive for H3N2 and none were positive for seasonal H1N1. One specimen was positive for influenza B. Geographically BC, Saskatchewan, Ontario, Nova Scotia and Newfoundland reported widespread activity. www.phac-aspc.gc.ca/fluwatch/

### *National Microbiology Laboratory*

Between September 1st and November 18, 2009, 221 influenza isolates were collected from provincial and hospital labs and characterized at the National Microbiology Laboratory (NML):
218 A/California/07/2009 (H1N1)-like§ from AB, ON, SASK, BC, NT, & NU;
1 A/Brisbane/59/2007(H1N1)-like† from AB;
1 A/Brisbane/10/2007(H3N2) -like† from ON;
1 B/Brisbane/60/2008-like† from ON
§ A/California/07/2009 (H1N1) is the variant reference virus (pH1N1) selected by WHO for a pandemic influenza A/H1N1 vaccine.
† indicates a strain match to the 2009-10 vaccine

### *Antivirial Resistance*

Drug susceptibility testing at the NML between September 1st and November 18th, 2009 indicated that most pH1N1 (n=122) isolates were sensitive to oseltamivir, 3 viruses were resistant. All influenza B isolates (n=1) and influenza A/H3N2 isolates (n=2) tested were sensitive and the one seasonal A/H1N1 isolate tested was resistant. All pH1N1 (n=114), seasonal H1N1(n=1), A/H3N2 (n=2) and influenza B (n=1) isolates were sensitive to zanamivir. All pH1N1 (n=82), and A/H3N2 (n=6) isolates were resistant to amantadine. One isolate for seasonal H1N1 was sensitive and one was resistant to amantadine.
Global surveillance has shown that circulating pH1N1 viruses are resistant to amantadine but remain sensitive to zanamivir and oseltamivir, although sporadic cases of oseltamivir resistance have been observed worldwide

### *International*

In the United States (http://www.cdc.gov/flu/weekly/), in the week ending November 14th, influenza activity decreased slightly. 28.8% of respiratory specimens tested in reference laboratories in week 45 were positive for influenza, and over 99% percent of the subtyped influenza A viruses were pH1N1. 0.1% of specimens tested positive for Influenza B. The proportion of sentinel physician visits for ILI decreased to 5.5%, this is above the seasonal peak for last year. The proportion of deaths attributed to pneumonia and influenza was at the epidemic threshold for the seventh consecutive week.
In Europe for the week ending November 20 influenza activity remained high. Twenty-seven countries reported activity above baseline values, but seven reported a decreasing trend. 45% of sentinel laboratory samples were positive for influenza, this proportion is similar to that typically observed at the seasonal peak. Over 99% of specimens positive for influenza A were pH1N1. (*http://www.eiss.org* )

**Pandemic H1N1 Influenza Web Sites**

| | |
|---|---|
| Yukon H&SS | www.hss.gov.yk.ca/ |
| PHAC: | www.phac-aspc.gc.ca/alert-alerte/swine_200904-eng.php |
| BCCDC: | www.bccdc.ca/dis-cond/a-z/_h/HumanSwineFlu/default.htm |
| | www.health.gov.bc.ca/pandemic/response/index.html |
| US CDC: | www.cdc.gov/swineflu/index.htm |
| WHO: | www.who.int/csr/disease/swineflu/en/index.html |

## Acronyms

| | |
|---|---|
| **ILI:** | Influenza-Like Illness |
| **pH1N1:** | Pandemic H1N1 influenza or swine origin influenza |
| **WHO:** | World Health Organization |

Yukon Communicable Disease Control
#4 Hospital Road
Whitehorse Yukon T
Y1A 3H8
Phone: (876) 667-8323 Fax: (876) 667-8349